

**ABSTRACT**

**METHOD TO HAVE A REAL TIME DATA COMMUNICATION**

The present invention discloses a method to have a real time data communication between a first user (U1) of a source (S) and a second user (U2) of a destination (DT) via a real time data over Internet Protocol communication network. The method comprises transmitting by a transmitting means (TR) of the source (S) at least two packets (T1, T2, T3, T4) to the destination (D), and determining by a receiving means (REC) of the destination (D) for each one (T2) of the at least two packets (T1, T2, T3, T4), time information (T2\_t2) related to a receiving time (t2) of the packet (T2). The method further comprises applying by the transmitting means (TR) for each one (T2) of the packets (T1, T2, T3, T4) a predefined packet length (l2) out of a plurality of packet lengths (l1, l2, ..., li) in order to be transmitted accordingly. A first determining means (DET1) determines according to each time information (T1\_t1, T2\_t2, T3\_t3, T4\_t4) associated to the packets (T1, T2, T3, T4) of the receiving means (REC), and according to each predefined packet length (l1, l2, l3, l4) associated to the packets, the characteristics of a first relation ( $f_1(T, \alpha)$ ) between a packet length of a packet to be transmitted from the source (S) to the destination (D) and a source to destination delay (d-S2D) being a time period between the transmission of said packet by the source (S) and reception of the packet by the destination (D). A second determining means (DET2) determines a preferred mouth to ear delay (d-M2E-pref) according to a preferred quality rating (Q-pref) for the real time data communication (C). A third determining means (DET3) determines an optimal packet length (l-opt) for the preferred mouth to ear delay (d-M2E-pref) and according to the characteristics of the first relation ( $f_1(T, \alpha)$ ) in order to be applied by the source (S) for packets being transmitted during the real time data communication. (Figure 1).